

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-54 (Cancelled)

55. (New) A wafer processing apparatus comprising:

a plurality of metal deposition chambers, the metal deposition chambers to deposit metal layers on wafers;

at least one annealing chamber, the at least one annealing chamber integrated with the wafer processing apparatus, the at least one annealing chamber to anneal the metal layers to stabilize hardness of the metal layers prior to chemical mechanical polishing;

a robot to move the wafers having the metal layers deposited thereon from the metal deposition chambers directly to the at least one annealing chamber shortly after the metal layers have been deposited on the wafers.

56. (New) The wafer processing apparatus of claim 55, wherein the plurality of metal deposition chambers are chemical mechanical polishing chambers.

57. (New) The wafer processing apparatus of claim 56, wherein the wafer processing apparatus consists essentially of the plurality of chemical vapor deposition chambers, the at least one annealing chamber, and the robot.

58. (New) The wafer processing apparatus of claim 56, wherein the at least one annealing chamber is attached to the side of the wafer processing apparatus.

59. (New) The wafer processing apparatus of claim 56, wherein the at least one annealing chamber is provided adjacent to the wafer processing apparatus and its chemical vapor deposition chambers.
60. (New) The wafer processing apparatus of claim 56, wherein the chemical vapor deposition chamber comprises a copper deposition chamber.
61. (New) The wafer processing apparatus of claim 56, wherein the at least one annealing chamber comprises a furnace.
62. (New) The wafer processing apparatus of claim 56, wherein the at least one annealing chamber comprises a heat lamp.
63. (New) The wafer processing apparatus of claim 56, wherein the at least one annealing chamber comprises a hot stage.
64. (New) The wafer processing apparatus of claim 56, wherein the at least one annealing chamber is to heat the metal layer to a temperature of about 200 degrees Celsius.
65. (New) The wafer processing apparatus of claim 56, wherein the wafer processing apparatus does not have a polishing chamber.
66. (New) The wafer processing apparatus of claim 56, wherein the wafer processing apparatus comprises three chemical vapor deposition chambers.
67. (New) A wafer processing apparatus comprising:

at least one annealing chamber, the at least one annealing chamber integrated with the wafer processing apparatus, the at least one annealing chamber to anneal wafers

having metal layers thereon to stabilize hardness of the metal layers prior to chemical mechanical polishing;

one or more chemical mechanical polishing platforms, the one or more chemical mechanical polishing platforms integrated with the wafer processing apparatus, the one or more chemical mechanical polishing platforms to polish the wafers including the metal layers;

a robot to move the wafers having the metal layers deposited thereon from the at least one annealing chamber directly to the one or more chemical mechanical polishing platforms.

68. (New) The wafer processing apparatus of claim 67, further comprising the robot to move the wafers from the one or more chemical mechanical polishing platforms back to the at least one annealing chamber after the wafers have been polished.

69. (New) The wafer processing apparatus of claim 67, wherein the wafer processing apparatus consists essentially of the at least one annealing chamber, the one or more chemical mechanical polishing platforms, and the robot.

70. (New) The wafer processing apparatus of claim 67, wherein the at least one annealing chamber is attached to the side of the wafer processing apparatus.

71. (New) The wafer processing apparatus of claim 67, wherein the at least one annealing chamber is provided adjacent to the wafer processing apparatus and one or more chemical mechanical polishing platforms.

72. (New) The wafer processing apparatus of claim 67, wherein the at least one annealing chamber comprises one or more selected from a furnace, a heat lamp, and a hot stage.

73. (New) The wafer processing apparatus of claim 67, wherein the at least one annealing chamber is to heat the metal layer to a temperature of about 200 degrees Celsius.

74. (New) The wafer processing apparatus of claim 67, wherein the wafer processing apparatus does not have a metal deposition chamber.

75. (New) The wafer processing apparatus of claim 67, wherein the wafer processing apparatus comprises three chemical mechanical polishing platforms.

76. (New) A wafer processing apparatus comprising:

one or more chemical mechanical polishing platforms, the one or more chemical mechanical polishing platforms integrated with the wafer processing apparatus, the one or more chemical mechanical polishing platforms to polish wafers having metal layers thereon;

at least one annealing chamber, the at least one annealing chamber integrated with the wafer processing apparatus, the at least one annealing chamber to anneal the wafers having the metal layers thereon to stabilize hardness of the metal layers after the wafers have been polished;

a robot to move the wafers that have been polished from the one or more chemical mechanical polishing platforms directly to the at least one annealing chamber.

77. (New) The wafer processing apparatus of claim 76, further comprising the robot to move the wafers from the at least one annealing chamber to the one or more chemical mechanical polishing platforms before the wafers have been polished.

78. (New) The wafer processing apparatus of claim 76, wherein the wafer processing apparatus consists essentially of the at least one annealing chamber, the one or more chemical mechanical polishing platforms, and the robot.

79. (New) The wafer processing apparatus of claim 76, wherein the at least one annealing chamber is attached to the side of the wafer processing apparatus.

80. (New) The wafer processing apparatus of claim 76, wherein the at least one annealing chamber is provided adjacent to the wafer processing apparatus and one or more chemical mechanical polishing platforms.